

Religion-Making and Art-Making: Identifying Convergences Between Cognitive Evolutionary and Social Constructionist Models of Human Evolution

Carole M. Cusack

Introduction¹

This review article is focused on Stephen Davies' *The Artful Species* (2013) and investigates the close relationship between art and religion (or the arts and religions) in human culture and history. Davies' account of the case of art-making and aesthetics is compared with the case of religion in the model of human evolutionary development outlined in *Religion in Human Evolution* (2011), by the late Robert N. Bellah (1927-2013). Both Davies and Bellah explore the possibilities offered by an evolutionary biological understanding of these vital aspects of human existence, art and religion. Yet both Bellah and Davies stress that the cognitivist explanation of the origin and parallel functions of art and religion are also broadly compatible with the older social constructionist models. This article considers Davies' assessment of cognitivist explanations of art (art as adaptation, art as a spandrel – an accidental by-product of adaptive evolutionary behaviour – and art as vestige, that is, enabled by evolution, but not itself evolutionary), and of the possibility that art is a cultural production that has no relationship to biology.

The explanatory power of these models, when applied to 'art' or 'aesthetics', is broadly comparable when 'religion' is substituted for 'art'. I argue first, that both art and religion arise from play, and involve shared

Carole M. Cusack is a Professor of Religious Studies at the University of Sydney.

¹ I am grateful to my research assistant Venetia Robertson for library searches and note-taking. Thanks are due to Don Barrett for his sympathetic interest in my work and help with refining my ideas during the writing process. That his undergraduate Philosophy Major included a unit in Aesthetics is a bonus.

narratives and experiences of an order other than the quotidian.² Second, different types of social and political organizations will foster different types of art and religion. Third, certain religious practices bear a strong resemblance to art practices (especially the body-based performance variety), and that an examination of both kinds of practices aids in making transparent the processes underlying the origin and development of the arts and religions (out of narrative and play, via the intermediate stage of ritual). Finally, I consider the challenges posed by the ‘hard’ sciences to traditional Humanities disciplines like Philosophy and Religious Studies, and offer some remarks on the importance of what Thomas F. Gieryn termed “boundary work.”³

A Brief Note On Traditional Aesthetics and Western Approaches to Art

Since the term ‘aesthetics’ entered the vocabulary of philosophy in the eighteenth century has been regarded as a highly complex and contested area of inquiry. Derived from the concept of ‘taste’, aesthetics as a separate field sought to develop a response to Enlightenment rationalist notions of beauty and virtue that was empirically-based. James Shelley expresses the distinction thus: “[a]gainst rationalism about beauty, the eighteenth-century theory of taste held the judgment of beauty to be immediate; against egoism about virtue it held the pleasure of beauty to be disinterested.”⁴ As a philosophical sub-discipline, aesthetics operates across four domains: those of objects, judgments, attitude, and experience. The aesthetic attitude involves disinterestedness, sympathy, attention, and contemplation.⁵ Aesthetic objects are frequently accorded the status of ‘art’, itself a problematic term, but which is here defined as “the expression of any ideal that the artist can realize in plastic form.”⁶ This is a useful definition as it does not tether art to beauty, nor separate ‘fine’ from ‘applied’ art, nor does it make assumptions about the social status, gender, or motivations of the artist, apart from the notion that s/he was inspired to realize an ‘ideal’.

² Carole M. Cusack, ‘Play, Narrative and the Creation of Religion: Extending the Theoretical Base of “Invented Religions”’, *Culture and Religion*, vol. 14, no. 4 (2013), pp. 363-377.

³ Thomas F. Gieryn, ‘Boundary Work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists’, *American Sociological Review*, vol. 48, no. 6 (1983), pp. 781-795.

⁴ James Shelley, ‘The Concept of the Aesthetic’, *Stanford Encyclopedia of Philosophy* (2013), at <http://plato.stanford.edu/entries/aesthetic-concept/>. Accessed 13/12/2013.

⁵ Jerome Stolnitz, ‘The Aesthetic Attitude’, in *Introductory Readings in Aesthetics*, ed. John Hospers (New York and London: The Free Press and Collier Macmillan, 1969), pp. 17-27.

⁶ Herbert Read, *The Meaning of Art* (London: Faber and Faber, 1974 [1931]), p. 23.

Aesthetic judgment has been known since the philosophy of Immanuel Kant (1724-1804) to be especially problematic, in that its “subjective character” nevertheless seeks “objective verification” in human nature or culture, raising the issue that values are situated in particular contexts, rather than being universal and applicable across all historical eras and cultures.⁷

Aesthetic experience, the fourth domain, was initially explained by reference to the internalist model of Monroe C. Beardsley (1915-1985). Beardsley’s internalist theory was in essence a phenomenological account of aesthetic experience, positing that it possessed the three qualities; focus, intensity, and unity (which was subdivided into coherence and completeness). George Dickie (b. 1926) criticised Beardsley for failing to “distinguish between the features we experience aesthetic objects as having and the features aesthetic experiences themselves have.”⁸ As a result, in 1982 Beardsley put forward an externalist model. Externalism states that an aesthetic experience is just an experience with aesthetic content (that is, that is engendered by the object). This points to another problem, in that early philosophers of aesthetics were empiricists, and this remains discernible in the case of aesthetic judgements, briefly discussed above. Yet, aesthetic experience is generally now explained in externalist terms; that is, the qualities are inherent in the object, not in the experiencer. This is, in fact, a rationalist position: as Beardsley notes, the “three general critical standards, unity, complexity, and intensity” as qualities of the object contemplated are appealed to in almost all scholarship in the field of aesthetics.⁹

In the mid-twentieth century aesthetics as a philosophical sub-discipline was attacked by scholars from Marxist and, more broadly, social-scientific backgrounds. Criticisms focused on the essentialism, psychologisation, and elitism of traditional approaches to art, and the theological contention that the making of art is akin to the action of God in the creation of the universe, which romanticises the figure of the artist as godlike.¹⁰ In 1970, Hanna Deinhard critiqued the assumption that art objects are perceived to be beautiful (aesthetically pleasing) across cultures and historical eras, and asserted that,

[t]he point of departure of the sociology of art is the question: How is it possible that works of art, which always originate as products of human activity *within* a particular time and society and *for* a

⁷ Stefan Morawski, *Inquiries Into the Fundamentals of Aesthetics* (Cambridge, MA: Massachusetts Institute of Technology, 1974), p. 159.

⁸ Shelley, ‘The Concept of the Aesthetic’.

⁹ Monroe C. Beardsley, ‘Reasons in Aesthetic Judgments’, in *Introductory Readings in Aesthetics*, p. 253.

¹⁰ Jean Duvignaud, *The Sociology of Art* (London: Paladin, 1972 [1967]), p. 24.

particular time, society, or function – even though they are not necessarily produced as ‘works of art’ – can live beyond their time and seem expressive and meaningful in completely different epochs and societies? On the other hand, how can the age and society that produced them be recognized in the works?¹¹

The continued relevance of this challenge, and the enduring value and effectiveness of broadly social constructionist or social-constructivist explanations of human activities is crucial to the argument of this article.

Additionally, the dialogue between evolutionary biological explanations and social constructionism makes it possible to answer, even if tentatively, more basic questions that have recently arisen in the field of aesthetics. Shelley argues that these sceptical questions include, “whether any use of ‘aesthetic’ may be explicated without appeal to some other; whether agreement respecting any use is sufficient to ground meaningful theoretical agreement or disagreement; [and] whether the term ultimately answers to any legitimate philosophical purpose that justifies its inclusion in the lexicon?”¹² To put it slightly differently, is ‘aesthetics’ so inherently compromised (as a term, a sub-field of philosophy, and a praxis) that it merits abandonment, or will new evidence (such as that provided by cognitive theorists or evolutionary biologists) reinstate its value and relevance?

Evolutionary Explanations of Aesthetics and Art in *The Artful Species* (2013)

In *The Artful Species* (2013) Stephen Davies explicitly sets out to investigate the role of aesthetic experience in the development of pre-human hominids and in the process of “prehistoric art creation by humans” (p. 5). This research aim necessitates a multi-disciplinary approach to the study of the connections between evolution, aesthetics, and art. Davies draws upon evolutionary psychology, neuroscience, anthropology, archaeology, ethology, philosophy, art history, musicology, and literary theory, to produce what is a wide-ranging and genuinely ground-breaking book. In Part I, ‘Key Concepts’, Davies is concerned to separate the notion of aesthetic experience from experiences that are merely pleasurable. He states that:

I identify [the aesthetic] with the kind of experience to which it gives rise and with the kind of properties on which that experience focuses, these being in the most general classification those of beauty, the sublime, or their opposites. And I’ve rejected as too

¹¹ Hanna Deinhard, *Meaning and Expression: Towards a Sociology of Art* (Boston: Beacon Press, 1970), p. 3.

¹² Shelley, ‘The Concept of the Aesthetic’.

liberal the position that regards all pleasurable or unpleasurable perceptual experience as aesthetic (p. 15).

From this starting point, Davies notes the Kantian idea that the aesthetic experience is ethical, in that the object is appreciated with disinterest, sketches the Deweyan notion that beauty may inhere in the mundane (as Damien Freeman puts it, the art experience is not separate from ordinary experience, but “is distinguished by the way in which the affective and perceptual parts of the ordinary experience are unified in a way that they are ordinarily not unified”),¹³ and notes the aesthetic dimension of appreciating how a utilitarian object succeeds in successfully fulfilling its function.

More important for the argument of *The Artful Species* are Davies’ considerations of how the aesthetic experience of art differs from that of the aesthetic experience of phenomena that are not art (non-human animals, landscapes, attractive humans, and so on). He notes that throughout history the aesthetic quality and the function of an art form (a ritual dance, a sculpture of a deity, and so on) were closely related. His definition of art is flexible and open-ended, positing that a thing:

is art (a) if it falls under an established, publicly recognised category of art or within an established art tradition, or (b) if it is intended by its maker/presenter to be art and its maker/presenter does what is necessary and appropriate to realising that intention, or (c) if it shows excellence of skill and achievement in realising significant aesthetic or artistic goals (pp. 28-9).

Davies’ understanding of evolution is also important; he adheres to the view that human beings possess a dual inheritance from biology and culture, and that these two domains are mutually constitutive, and not separate and uninvolved. This section of the book concludes by questioning whether art is universal (focusing on music) and whether art is meaningful in cross-cultural contexts.

Davies then discusses the three possible roles art and aesthetics might play in the evolutionary development of humans. The strongest position is that art is an adaptation, that it has “transmissible capacities that increased the fitness of those who displayed them;” in other words, that art and aesthetics optimised the process of evolution for humans (p. 45). The second position is that art and aesthetics are what the late Stephen Jay Gould and Richard Lewontin termed “spandrels,” that is, necessary by-products of evolutionarily adaptive phenomena that are not themselves adaptations.¹⁴ The third possibility is that art

¹³ Damien Freeman, *Art’s Emotions: Ethics, Expression and Aesthetic Experience* (Durham: Acumen, 2012), p. 4.

¹⁴ Stephen J. Gould and Richard S. Lewontin, ‘The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme’, *Proceedings of the*

and aesthetics are vestiges. Vestiges are things that were previously functional, but no longer are (like the human appendix). A final possibility, which is rejected by Davies, is that art and aesthetics are entirely cultural phenomena, and not connected to evolutionary biology. Anton Killin, in an insightful review essay dedicated to Davies, concurs: “there is good reason to be sceptical of views that treat biology and culture as causally independent especially with regards to ancient behaviours such as music, dance, painting, sculpture and fiction.”¹⁵

Part II, ‘The Aesthetic’, is focused on three specific topics: human appreciation of animal beauty; the aesthetics of landscape; and aesthetic experience of human beauty. In the discussion of non-human animals, Davies notes that humans respond in various ways to the visual presentation of certain animals, and proposes that genetics may cause us to respond aesthetically to certain animals as an adaptive strategy, given their role in the lives of our ancestors (p. 72). Davies’ account of human aesthetic responses to landscape depends upon the ‘biophilia’ hypothesis of Roger Ulrich, that,

certain advantages associated with natural settings during evolution were so critical for survival as to favour selection of individuals with a disposition to acquire, and then retain, various adaptive positive/approach responses to unthreatening natural configurations and elements. From this it follows as a remnant of evolution, modern humans might have a biologically prepared readiness to learn and persistently retain certain positive responses to nature but reveal no such preparedness for urban or modern elements.¹⁶

The discussion of human beauty is broader than the traditional account (that of male appreciation of female sexual attractiveness), and Davies argues that evolutionary psychology prioritises the view that humans are drawn to signs of ‘fitness’ (such as health, fertility, and so on) in potential mates. However, he asserts that the aesthetic response to other humans often involves factors other than sexual attractiveness, like “aspects of character, intellect, and spirituality” (p. 116).

The core of the book is Part III, ‘The Arts’, which commences with an assessment of various theories of art and evolution (for example, that of Geoffrey

Royal Society of London. Series B, Biological Sciences, vol. 205, no. 1161 (1979), pp. 581-598.

¹⁵ Anton Killin, ‘The Arts and Human Nature: Evolutionary Aesthetics and the Evolutionary Status of Art Behaviours’, *Biology & Philosophy*, vol. 28, no. 4 (2013), p. 714.

¹⁶ Roger S. Ulrich, ‘Biophilia, Biophobia, and Natural Landscapes’, in *The Biophilia Hypothesis*, eds Stephen R. Kellert and Edward O. Wilson (Washington, DC: Island Press, 1993), p. 88.

Miller, who argues that the arts are adaptations for sexual display that resulted in the attraction of higher-quality mates, and Ellen Dissanayake, who claims that the creative act of making art “displays the hallmarks of a biological adaptation” and is a “source of intrinsic pleasure”) (pp. 124-130). Music is the chosen example of art practice, and Davies concludes that it is so varied a phenomenon that no simple explanation will satisfactorily explain it. Evolutionary psychology hypothesises that music arose in tandem with perceptual development, motor skill development, and trans-generational communication, but such a hypothesis does little or nothing to explain what music is, or to account for the varied roles it has played in human cultures (pp. 132-133).

It seems that for Davies the evidence that art is adaptive is not persuasive. Yet music explained as a spandrel appears equally unsatisfactory. Here, Davies reveals his hand, arguing that the creation and appreciation of art was widespread in prehistory, and thus individuals who showed no interest in or appreciation of art products would have appeared ‘unfit’ and undesirable. He concludes that,

[a]ny transmissible human form or behaviour that was recognised as signifying well-formedness and developmental normalcy would not only become statistically average as it successfully spread through the population; it would become normative in the evaluative sense, whether it first emerged as an adaptation or as a spandrel (p. 145).

The arts as vestiges and as pure technologies are both models that Davies regards as unconvincing. He then uses the example of literature (as much evolutionary biological work on the arts as adaptations has concentrated on literature).¹⁷ Yet, in the book’s conclusion Davies is very wary of identifying music or literature as evolutionary adaptations, as for him the evidence simply was not strong enough (particularly with regard to the heritability of behaviours).¹⁸ He concludes that the arts are most likely not to be adaptations, but to be by-products of adaptations for “intelligence, humour, sociality, emotionality, inventiveness and curiosity” (p. 185). This conclusion is weaker than those drawn by certain evolutionary biologists, yet is strong in that it certainly places art as central in both individual human psychology, and for group social development. These twin claims for art point to the role of religion, for which near-identical claims can be made.

¹⁷ See Brian Boyd, *On the Origin of Stories: Evolution, Cognition, and Fiction* (Cambridge, MA and London: The Belknap Press, 2009).

¹⁸ Justine Kingsbury, ‘Review of *The Artful Species*’, *Australasian Journal of Philosophy*, vol. 91, no. 4 (2013), p. 805.

Parallels Between Art and Religion in Evolutionary Biological Models of Human Development

The encroachment of evolutionary biology upon the traditional field of aesthetics is directly paralleled by a similar imperialist expansion by cognitivist scholars into the domain of Religious Studies. For approximately two decades, since the publication of Stewart Guthrie's 'A Cognitive Theory of Religion' (1980), the 'new' cognitivist approach to the origin of religion (hypothesised either as an adaptive behaviour that facilitated human evolution, or as a by-product – that is, a spandrel – of adaptive community building behaviours), has gained credibility and, arguably, is poised to become the scholarly orthodoxy of the coming decades.¹⁹ This methodological shift tends to be viewed sceptically by those whose allegiance to older theoretical models (often a motley crew with little in common, as they variously adhere to philological approaches, social constructivist methods, and a range of 'postmodern' positions, among other methodologies) is challenged by the new universalism of the common human evolutionary history and the common human cognitive architecture. However, it is possible to demonstrate that cognitivist theories of religion significantly overlap with older social constructivist (or constructionist) theories, and that Religious Studies as a field might be reinvigorated through dialogue with certain disciplines (principally evolutionary biology and psychology) that have traditionally been viewed as Science, rather than Humanities.

The model of the origin and development of religion developed in the late Robert N. Bellah's *Religion in Human Evolution* (2011) focuses particularly on the centrality of play, to establish three crucial propositions. The first of these is that play, narrative, and experiences of an order other than the quotidian are central to the emergence and maintenance of religion. The second is that different types of social organization and political organizations will foster different types of religion.²⁰ Bellah argues that these are related to the four modes of human developmental psychology, characterized as unitive, enactive, symbolic and conceptual; thus, in important ways he re-establishes the notion that collective human social development parallels individual development (recalling, though in a looser, less prescriptive fashion, Ernst Haeckel's claim

¹⁹ Stewart Guthrie, 'A Cognitive Theory of Religion', *Current Anthropology*, vol. 21, no. 2 (1980), pp. 181-194. See also *Religious Narrative, Cognition and Culture: Image and Word in the Mind of Narrative*, ed. Armin Geertz and Jeppe Sinding Jensen (Sheffield and Oakville, CT: Equinox, 2011).

²⁰ Robert N. Bellah, *Religion in Human Evolution: From the Paleolithic to the Axial Age* (Cambridge, MA and London, The Belknap Press, 2011).

that “ontogeny recapitulates phylogeny”).²¹ Bellah’s model is significant because he links cognitive theories of religion to older social constructionist theories. Further, it closely parallels the application of evolutionary biology to the making of art and to aesthetics attempted by Stephen Davies in *The Artful Species*, discussed above.

Bellah’s understanding of play relies on the classic account by Johan Huizinga, *Homo Ludens* (1938, English translation 1949). Language, myth and ritual, the “archetypal activities of human society,” are intimately related to play, and Huizinga builds a model of play that emphasises its voluntary and free nature, its capacity for seriousness despite its explicit lack of seriousness, its presumption of disinterest, its acknowledgement of “certain limits of time and space,” and its promotion of “the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.”²² In *Religion in Human Evolution*, Bellah improved upon Huizinga’s theory of play, employing evidence from a range of disciplines including evolutionary biology, psychology, and cognitive development. Where Huizinga merely claimed that different mental states are experienced within play, Bellah employs Abraham Maslow’s notion of Deficiency (D) cognition and Being (B) cognition, and argues that D-cognition can be equated to Alfred Schutz’s ‘daily life’, whereas B-cognition occurs when humans are motivated to participate rather than manipulate, and then experience the breakdown of the subject-object dichotomy and a sense of wholeness, conditions that manifest in situations in which religious experience is facilitated.²³ He then argues that “unitive states” (in which the subject-object divide is erased, time is speeded up or slowed down, and language is inadequate to the task of describing what has happened), is the paradigmatic condition that underlies all ‘religious’ experiences. The experience of artistic creation, and arguably of aesthetic appreciation, involves a similar state of “flow.”²⁴

²¹ Benoit Dayrat, ‘The Roots of Phylogeny: How Did Haeckel Build His Trees?’, *Systematic Biology*, vol. 52, no. 4 (2003), pp. 515-527.

²² Johan Huizinga, *Homo Ludens: A Study of the Play Element in Culture* (London: Paladin, 1971[1949]), pp. 22, 28, and 32.

²³ Bellah, *Religion in Human Evolution*, pp. 8-11.

²⁴ Mihaly Csikszentmihalyi, *Flow: The Psychology of Optimal Experience* (New York: Harper and Row, 1990). It is worth noting that this foregrounding of “flow” is not intended to support the hypothesis proposed by Fulvio Grosso and Peter Webster in *The Dream on the Rock: Visions of Prehistory* (Albany, NY: State University of New York, 2013), that shamanic experiences caused by psychedelic drug ingestion are the origin point of religion, and crucial to the evolution of humanity.

Bellah's argument then links the representation of unitive states through the four modes of developmental psychology (unitive, enactive, symbolic and conceptual) to narrative, in particular religious narrative that is closely related to ritual (in that it is often recited and enacted). He also notes that unitive states may be communal as well as individual; thus the Durkheimian notion of collective effervescence may also point to the power of that experience. Rituals, (including dance and music), are among the instances of art-making that Stephen Davies considered to be particularly ancient and to link contemporary humans with distant ancestors. Further, these sites of art-making served to confirm the mutually supportive relationship of aesthetic quality and functionality.²⁵ Bellah joins ritual and enactive representation to narrative, positing that human selves are primarily narrative selves, exhibiting a debt to neuroscientist and anthropologist Terrence Deacon who (with Tyrone Cashman) has argued that narrative may have given rise to the notion of life after death. Evidence supporting this suggestion includes the fact that symbolism renders humans aware of the difference between the physical world and the symbolic order, as the "dualism of thing and word may engender metaphysical dualism."²⁶ This returns attention to play, in that storytelling can be a mode of playful representation, both entertaining and speculative. Given that literature is the art-form most frequently claimed as an evolutionary adaptation, the centrality of narrative to religion is highly suggestive.

It is hardly surprising that the two most common evolutionary positions argued for religion is that it is an adaptation or a spandrel, and the weaker explanations that it is either a vestige or entirely a product of culture are either dismissed outright or briefly noted.²⁷ One complex area of difference between the evolutionary status of art and religion is the place of visual culture in each domain. Clearly, the visual dimension is crucial to the great majority of instances of art, but in modern (primarily textual) religions it is wont to be decried.²⁸ Yet, as John Harvey notes, like the aesthetic sense (which is usually assumed to be positive, but which includes reactions of revulsion and disgust), religion has a lively culture of visual representation that is blasphemous, anti-religious, and very powerful.²⁹ This incongruity reminds us that despite the fact that cognitive

²⁵ Davies, *The Artful Species*, p. 26.

²⁶ Bellah, *Religion in Human Evolution*, pp. 102-103.

²⁷ Joseph Bulbulia, 'The Cognitive and Evolutionary Psychology of Religion', *Biology and Philosophy*, vol. 19 (2004), pp. 655-686.

²⁸ John Harvey, 'Visual Culture', in *The Routledge Handbook of Research Methods in the Study of Religion*, eds Michael Stausberg and Steven Engler (London and New York: Routledge, 2011), p. 504.

²⁹ Harvey, 'Visual Culture', pp. 516-519.

evolutionary biology seems to act as a revitalisation of Enlightenment universalism, denying the emphasis on historical particularity and cultural specificity that the plethora of postmodernist methodologies championed, it is open to difference. Bellah, for example, argues that different types of social and political organizations will foster different types of religion,³⁰ which is undeniable, and parallels the radical variety of art products available, from Indigenous Australian ritual objects, through Impressionist paintings, to Egyptian funerary architecture, and a myriad other forms.

With regard to the evolutionary relationship between art and religion, despite the fact that it is not possible to prove that – if they are either adaptive or spandrels – these are heritable, it is worth noting that even in the twenty-first century (temporally a very long way from the origin of religion and art in the early development of humanity) certain religious practices, particularly those that relate to ritual, bear a strong resemblance to art practices, particularly body-based performance art. Supporting this view is an emergent scholarly field that draws attention to the fundamental role that embodiment plays in all human experiences and cultural productions, including those phenomena that are traditionally conceived of as dis- or un-embodied, like cognition, religious inspiration, and artistic creation.³¹ It is also possible to argue that by teasing out the connections between ritual and performance art, the processes whereby the origin of religion-making and art-making were arrived at are made transparent. Such processes, via play and narrative and experiences of flow and B cognition, are solidified by repeat performance and acquire attendant meanings or beliefs that point to realms of experience that transcended the quotidian, giving them a religious or sacral quality.

Boundary Work: Cognitivist and Evolutionary Biological Approaches to Traditional Humanities Fields

To date, the social constructivist approach to religion has been a *de facto* orthodoxy among scholars in religious studies wishing to avoid theology and other ‘insider discourses’ and focus on ‘scientific’ explanations of the origins and functions of religions. The classic social constructivist formulation is Peter Berger’s account of human world-building. He argues that religion is a part of this larger meaning-making activity, which is effected through three steps; externalisation, objectivation, and internalization. He states that,

[e]xternalization is the ongoing outpouring of human being [sic]

³⁰ Jack Tsonis, ‘The Deep History of Ritual and Mythology: New Terrain in the Study of Religion’, *Journal of Religious History*, vol. 38, no. 1 (2014), pp. 118-119.

³¹ Judith Kovach, ‘The Body as the Ground of Religion, Science, and Self’, *Zygon*, vol. 37, no. 4 (2002), pp. 41-961.

into the world, both in the physical and the mental activity of men. Objectivation is the attainment of the products of this activity (again both physical and mental) of a reality that confronts its producers as a facticity external to and other than themselves. Internalization is the reappropriation by men of this same reality, transforming it once again from structures of the objective world into structures of the subjective consciousness. It is through externalization that society is a human product. It is through objectivation that society becomes a reality *sui generis*. It is through internalisation that man is a product of society.³²

This makes it clear that, in direct opposition to theological accounts of religious revelation, humans create the deities, mythological narratives, and supra-empirical worlds that are the basic stuff of religion.

The newer cognitive approaches to the study of religion are compatible with this model of world construction, in that narrative has been a constant focus in the cognitivist understanding how humans construct both their individual selves and the community. Tom Sjöblom has observed that narratives perceived to be relevant are powerful, and have been explained both as adaptations, as they deal with “the survival of the individual either directly by promoting social cohesion or indirectly by offering alternative scenarios to existential questions such as what happens to us after death,” and as spandrels because they are “invested with strategic information ... [and] can be used as frames of reference in our everyday interactions,” or because humans have emotional commitments to them.³³ Robert Bellah uses the psychologist Jerome Bruner’s notion of the storytelling self, which is supported by research into early childhood cognition that demonstrate that stories are comprehensible before any type of abstract reasoning can be grasped. Indeed, it may be claimed that the human development of abstract types of reasoning (from the hard sciences to systematic theology) is posited upon the building block of narrative.³⁴ Bruner’s developmental psychology reinforces Johan Huizinga’s valuation of play, especially play involving repetition, as basic training in the development of social relationships and reasoning (and, we might add, art practices, and religious world-building).

The rise of cognitivist methodologies has been met with mixed reactions within religious studies and the wider humanities academic community. In part,

³² Peter Berger, *The Social Reality of Religion* (London: Faber and Faber, 1969[1967]), p. 4. Delete blank line below.

³³ Tom Sjöblom, ‘Pumping Intuitions: Religious Narratives and Emotional Communication’, in *Religious Narrative, Cognition and Culture: Image and Word in the Mind of Narrative*, p. 164.

³⁴ Jerome Bruner, *Acts of Meaning* (Cambridge, MA: Harvard University Press, 1990), p. 80.

this is because it is an example of the ‘hard’ sciences extending their reach into traditional humanities areas of research. This same unease is perceptible in Davies’ *The Artful Species*, although he stops short of dismissing evolutionary biological explanations of aesthetics and art objects. Aesthetics is not the first philosophical sub-discipline to be so challenged, nor will it be the last. Philosophy of mind has been largely displaced by neuroscience; a collection such as Anthony Flew’s classic anthology, *Body, Mind, and Death*, which appeared in 1964, and features extracts from such historical luminaries as Plato, Thomas Aquinas, Rene Descartes, and David Hume, appears almost comically dated when compared to Andy Clark’s *Mindware: An Introduction to the Philosophy of Cognitive Science* (2001), published less than forty years later.³⁵ Moreover, the merits of the differing scientific and humanities approaches to the subject of the mind and cognition have been battled out in publications, such as Maxwell Bennett et al, *Neuroscience and Philosophy: Brain, Mind, and Language*.³⁶

The challenges posed by the hard sciences to traditional humanities disciplines like philosophy and religious studies are usefully interpreted in terms of the model of ‘boundary work’ proposed by Thomas F. Gieryn. In his pioneering 1983 article, Gieryn discussed such instances as the dispute between Christian creationists and Darwinian evolutionists as to the origin of human life, analyzing the strategies pursued by scientists in the nineteenth century to attain an authority comparable to that of religion in the publish sphere.³⁷ In the twenty-first century the situation has substantially changed, in that the dominance of religious institutions has diminished while the power of science (and its applied partner, technology) has grown. Thus scientists are increasingly keen to venture into fields that have traditionally been the exclusive preserve of other experts, including academic specialists in the humanities and visual and performing arts. There is substantial evidence that certain of the sciences (for example, biology, genetics, and psychology) have offered striking new perspectives and fresh, empirical evidence, on a range of (arguably stagnating) humanities disciplines.³⁸

³⁵ Anthony Flew, *Body, Mind, and Death* (London and New York: Macmillan, 1964); Andy Clark, *Mindware: An Introduction to the Philosophy of Cognitive Science* (Oxford and New York: Oxford University Press, 2001).

³⁶ Maxwell Bennett, Daniel Dennett, Peter Hacker, John Searle, and Daniel Robinson, *Neuroscience and Philosophy: Brain, Mind, and Language* (New York: Columbia University Press, 2007).

³⁷ Gieryn, ‘Boundary Work and the Demarcation of Science from Non-Science’, pp. 783-786.

³⁸ Michael Stausberg, *Contemporary Theories of Religion: A Critical Companion* (London and New York: Routledge 2009); Andy Clark, *Microcognition: Philosophy,*

The sad truth, however, is that these fresh contributions are often rejected *tout court* by academics engaged in boundary work that is in essence concerned with shoring up their particular fiefdoms within the humanities.

Conclusion

Stephen Davies' *The Artful Species* considers the impact of cognitive evolutionary biology on a traditional sub-field of Western philosophy, and cautiously concludes that aesthetic experience and the impulse toward art-making may be either adaptive or spandrels; that is, he acknowledges that there is merit in the forays that scientists have made into traditional humanities fields. Before the rise of cognitive approaches, the social sciences had already questioned the traditional assumptions of aesthetics, and argued that aesthetics was compromised (as a term, a sub-field of philosophy, and a praxis) by a lack of recognition of the essentialism, psychologisation, and elitism of traditional approaches to art. The theological assumption that the art-making is akin to the action of God in the creation of the universe, which romanticises the figure of the artist as godlike, and the presumption that art objects are perceived to be beautiful (aesthetically pleasing) across cultures and historical eras were also critiqued.³⁹ In the 1970s the subfield of aesthetics came perilously close to fragmentation due to these methodological wars between scholars, both traditional and contemporary. In the early twenty-first century, the critical response to Davies' book suggests that new approaches and new evidence (such as is provided by cognitivists or evolutionary biologists) has the ability to reinvigorate an enervated field, and restore its relevance for contemporary philosophy and art history and theory.

Cognitive Science, and Parallel Distributed Processing (Cambridge, MA: Bradford Books, 1991); and Steve Fuller, *Humanity 2.0: What it Means to be Human Past, Present, and Future* (Houndmills and New York: Palgrave Macmillan, 2011).

³⁹ Duvignaud, *The Sociology of Art*, p. 24; Deinhard, *Meaning and Expression: Towards a Sociology of Art*, p. 3.